

Notice of Allowability

Application No.

10/697,417

Examiner

Abdou Karim Seye

Applicant(s)

LAURA, JOSEPH G.

Art Unit

2194

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 03/24/2008, 04/18/2008 and 04/24/2008.
2. ☒ The allowed claim(s) is/are 1-14, 17-19 and 55-72 (now renumbered as claims 1-35).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 03/24/2008
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Meng-Ai An/
Supervisory Patent Examiner, Art Unit 2195

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C.121:

- I. Claims 1-19 and 55-72, drawn to a system and method for coordinating and handling event signal, classified in class 719 and subclass 318.
- II. Claims 20-32, drawn to a system for controlling access to resource; resource allocation, classified in class 718 and subclass 104.
- III. Claims 47-53, drawn to a method for managing and addressing memory space; memory configuration classified in class 711 and subclass 1.

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case,

Group I requires coordinating and handling event signal associated with a child process, while the invention of Group II requires controlling access to resource; resource allocation. Therefore, the inventions of Groups I and II are patentably distinct.

Inventions I and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, Group I requires coordinating and handling event signal associated with a child process, while the invention of Group III requires managing and addressing memory space; memory configuration. Therefore, the inventions of Groups I and III are patentably distinct.

Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, Group II requires controlling access to resource; resource allocation, while the invention of Group III requires managing and addressing memory space; memory configuration. Therefore, the inventions of Groups II and III are patentably distinct.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art because of their recognized

divergent subject matter and are separately classified, restriction for examination purposes as indicated is proper.

3. During a telephone interview with Mr. Micheal Piper, on April 21, 2008, an election was made without traverse to prosecute the invention of Group I, claims 1-19 and 55-72. Claims 20-32 and 47-53 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
4. In order to expedite the prosecution of this application, applicant agreed to cancel all Non-elected claims 10-32 and 47-53.
5. Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael W. Piper (Reg. No. 39,800) on 21 April 2008.
6. The application has been amended as follows:

A. The specification had been amended as follows:

Please delete paragraph [001] in its entirety and replace with the following:

[001] This application is related to U.S. Patent Application Serial No. 10/696,968, now U.S. Patent No. 7,340,731 issued March 4, 2008 , entitled SYSTEM AND METHOD FOR COBOL TO PROVIDE SHARED MEMORY AND MEMORY AND MESSAGE QUEUES,

inventor Joseph G. Laura, filed on even date herewith, U.S. Patent Application Serial No. 10/696,895, now U.S. Patent No. 7,340,735 issued March 4, 2008, entitled IMPLEMENTATION OF DISTRIBUTED AND ASYNCHRONOUS PROCESSING IN COBOL, inventor Joseph G. Laura, filed on even date herewith, and pending U.S. Patent Application Serial No. 10/696,828, entitled SYSTEM AND METHOD FOR DISTRIBUTED PROCESSING IN COBOL, inventor Joseph G. Laura, filed on even date herewith, all of which are incorporated herein by reference for all purposes.

B. The claims had been amended as follows:

1. (Currently Amended) A method for enabling events in a COBOL program, the

method comprising:

- maintaining, in a COBOL program, an index including a process identifier and an event associated with a child process;
- initializing, by the COBOL program, the child process;
- placing the child process in a wait state when the child process is initialized;
- signaling, by the COBOL program, the child process to run using the process identifier and the event associated with the child process;
- creating a system resource by the COBOL program;
- designating the system resource to a process identification of the COBOL program;
- giving the system resource from the COBOL program to the child process using the process identifier of the child process;

taking the system resource by the child process from the COBOL program;
and
synchronizing such that the COBOL program completes giving the system
resource prior to the child process taking the system resource.

2. (Original) The method of Claim 1, wherein the COBOL program signals a technical layer using the process identifier and event associated with the child process and further wherein the technical layer signals the child process to run.
3. (Original) The method of Claim 1, wherein the index maintained by the COBOL program maintains a plurality of identifiers and a plurality of events associated with a plurality of child processes.
4. (Original) The method of Claim 1, wherein the child process is placed in the wait state by a technical layer.
5. (Previously Presented) The method of Claim 2, wherein the technical layer is further defined as a COBOL technical layer in communication with the COBOL program.
6. (Currently Amended) The method of Claim 2, wherein the technical layer is further defined as a COBOL library including at least one routine callable by the COBOL program.
7. (Previously Presented) The method of Claim 2, wherein the technical layer is integral to the COBOL program.

8. (Previously Presented) The method of Claim 2, wherein the technical layer is enabled by a COBOL compiler.
9. (Previously Presented) The method of Claim 2, wherein the technical layer is integral to a COBOL compiler.
10. (Previously Presented) The method of Claim 2, wherein the technical layer includes a coordination module operable.
11. (Original) The method of Claim 1, wherein the child process registers the process identifier of the child process with a technical layer.
12. (Original) The method of Claim 11, wherein the child process further registers the event associated with the child process with the technical layer.
13. (Original) The method of claim 1, further comprising maintaining a plurality of child processes wherein the process identifiers and events associated with each of the plurality of child processes is maintained in the index of the COBOL program.
14. (Original) The method of 13, further comprising:
 - providing a COBOL technical layer having a coordination module operable to coordinate signaling the plurality of child processes;
 - registering, by the plurality of child processes, with the COBOL technical layer;

signaling, by the COBOL program, the COBOL technical layer to run one or more of the plurality of child processes using the process identifiers and events associated with the child processes; and
coordinating, by the coordination module of the COBOL technical layer, the signaling of the child processes.

15-16. (Canceled)

17. (Currently Amended) The method of Claim 1[[16]], wherein the system resource is defined as a socket connection.

18. (Currently Amended) The method of Claim 1[[16]], wherein the system resource is defined as a pipe connection.

19. (Currently Amended) The method of Claim 1[[16]], further comprising:
placing the COBOL program in a wait state after giving the system resource to the child process; and
maintaining the COBOL program in the wait state until the child process takes the system resource.

20-32. (Canceled)

33-46. (Canceled)

Art Unit: 2194

47-53. (Canceled)

54. (Canceled)

55. (Currently Amended) A system for enabling events in COBOL programs, comprising:

a child process recorded on a computer-readable medium that performs a process;

a COBOL program recorded on a computer-readable medium having an index including a process identifier and an event associated with the child process, wherein the COBOL program initiates the child process, puts the child process in a wait state when initiated, and communicates the process identifier at an appropriate time, and wherein the COBOL program creates a system resource that is designated by a process identification of the COBOL program and gives the system resource to the child process using the process identifier of the child process; and

a technical layer recorded on a computer-readable medium having a register including the process identifier and the event associated with the child process, wherein the technical layer signals the child process to run upon receiving the process identifier,

wherein the child process takes the system resource from the COBOL program, and wherein the COBOL program gives and the child process takes the

system resource synchronously such that the COBOL program completes giving the system resource prior to the child process taking the system resource.

56. (Previously Presented) The system of Claim 55, wherein the COBOL program obtains the process identifier and the event associated with the child process on initializing the child process.
57. (Previously Presented) The system of Claim 55, wherein the child process registers the process identifier and the event with the COBOL program or the technical layer.
58. (Previously Presented) The system of Claim 57, wherein the COBOL program obtains the process identifier and the event associated with the child process from the technical layer subsequent to initializing the child process when the child process registers with the technical layer.
59. (Previously Presented) The system of Claim 55, wherein the technical layer associates the process identifier with the event using the register and then signals the child process to run based on the process identifier.

60. (Previously Presented) The system of Claim 55, wherein the COBOL program communicates the process identifier and the event, and wherein the technical layer signals the child process to run upon receiving the process identifier and the event.
61. (Previously Presented) The system of Claim 55, wherein the COBOL program puts the child process in the wait state through a request, and wherein the technical layer places the child process in the wait state upon receiving the request from the COBOL program.
62. (Previously Presented) The system of Claim 55, further comprising:
a plurality of child processes wherein the process identifiers and events associated with each of the plurality of child processes are maintained in the index of the COBOL program.
63. (Previously Presented) The system of Claim 62, wherein each of the plurality of child processes registers with the technical layer, wherein the COBOL program signals the technical layer to run one or more of the plurality of child processes using the process identifiers and events associated with the one or more of the plurality of child processes, and wherein the technical layer coordinates signaling the one or more of the plurality of child processes to run.

64. (Previously Presented) The system of Claim 55, wherein the technical layer is further defined as one of a COBOL technical layer in communication with the COBOL program or a COBOL library including at least one routine callable by the COBOL program.
65. (Previously Presented) The system of Claim 55, wherein the technical layer is integral to the COBOL program or is integral to a COBOL compiler.
66. (Previously Presented) The system of Claim 55, wherein the technical layer is enabled by a COBOL compiler.
67. (Previously Presented) The system of Claim 55, wherein the technical layer performs one or more calls to an operating system, wherein the technical layer defines a bit-level mapping of the one or more calls to interface with the operating system.
68. (Previously Presented) The system of Claim 55, wherein the child processes is one of a subtask, a subprogram, or a subroutine of the COBOL program.
69. (Previously Presented) The system of Claim 55, wherein the child process operates as a thread.

Art Unit: 2194

70. (New) The system of Claim 55, wherein the system resource is defined as a socket connection.
71. (New) The system of Claim 55, wherein the system resource is defined as a pipe connection.
72. (New) The system of Claim 55, wherein the COBOL program is placed in a wait state after the COBOL program gives the system resource to the child process and the COBOL program is maintained in the wait state until the child process takes the system resource.

Allowable Subject Matter

7. Claims **1-14, 17-19 and 55-72** are allowed.

a. As to **claim 1**, the prior art of record does not expressly teach creating a system resource by the COBOL program; designating the system resource to a process identification of the COBOL program; giving the system resource from the COBOL program to the child process using the process identifier of the child process; taking the system resource by the child process from the COBOL program; and synchronizing such that the COBOL program completes giving the system resource prior to the child

process taking the system resource, when taken in the context of the claim as a whole. More over, the art of record does not provide a basis of evidence for asserting a motivation driven from the art or from one knowledgeable in the art, that one of ordinary skill in the art at the time the invention was made would have modified a method for enabling events in a COBOL program to combine the disclosed limitations as recited in the context of **Claim 1**.

b. As to **Claim 55**, being directed to a system having substantially the same limitations as **Claim 1**, this claim is allowable for the same reasoning as recited in **Claims 1** above.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. Abdou Seye whose telephone number is (571) 270-1062. The examiner can normally be reached Monday through Friday from 7:30 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, contact the examiner's supervisor, An Meng at (571) 272-3756. The fax phone number for formal or official faxes to Technology Center 3600 is (571) 273-8300. Draft or

Art Unit: 2194

informal faxes, which will not be entered in the application, may be submitted directly to the examiner at (571) 273-6722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-3600.

AKS

April 24, 2008